



**STAMFORDWPCA**

Good Morning Senator Fonfara, Representative Fontana and members of the Energy and Technology Committee. My name is Jeanette Brown and I am the Executive Director of the Stamford Water Pollution Control Authority. I am a registered Professional Engineer in Connecticut, a Board Certified Environmental Engineer and a Class 4 certified wastewater treatment plant operator. I am also an Adjunct Professor of Environmental Engineering at Manhattan College and Chair of the American Society of Civil Engineers National Water and Energy Policy Committee.

I am speaking in support of adding biosolids to the definition of sustainable biomass in **HB 5597 AAC BIOMASS**. Biosolids, which is a biomass, is defined under 40 CFR Part 503 as wastewater residuals that can be used beneficially. They have been treated to such an extent that they are safe for public use and use on croplands. Biosolids have been used since the 1930's as fertilizer and all of the citrus fruit grown in Florida uses biosolids as fertilizer, primarily from the Milwaukee, Wisconsin wastewater treatment plant marketed under the name Millorganite. Millorganite is also sold for residential use in many nurseries throughout the United States, including Connecticut. These biosolids are heat dried and pelletized thus meeting the requirements in 40 CFR 503.

Stamford has recently installed a heat drying facility, the first in Connecticut, and the dried biosolids from that facility will be initially marketed as fertilizer to states that accept it such as Florida and New York. This is just an interim plan. Stamford's plan is to use these biosolids in the as gasification process as a sustainable, renewable fuel source. Stamford is conducting a research and development project funded primarily by the Department of Energy and Stamford Water Pollution Control Authority, with some support from USEPA. This research will demonstrate, and quantify the value of gasifying biosolids in the production of synthetic gas (Syngas) and ultimately generating heat and electrical power. We have successfully proved this concept by converting dried biosolids to Syngas and powering a 50 KW generator and distributing the electricity to the local utility power grid. The biosolids produced a high BTU synthetic gas with little or no

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contaminants. We are in the process of optimizing the production quality and efficiency of the system. We plan on constructing a biosolids gasification to electricity production facility with the goal of designing a 10 to 15 megawatt plant later this year with construction beginning in mid to late 2009.

Biosolids as a resource is presently on the cutting edge of development world wide. It is very important and somewhat critical that the State of Connecticut take a leading step and recognize the potential of biosolids as a sustainable resource and as biomass for gasification. The amount of biosolids produced in the United States would result in almost 192,000,000,000,000 BTU's annually which translates to 35 to 50 million megawatts of electrical power. Biosolids biomass is a clean, renewable energy source. The Stamford project is proving that there will not be any emission of greenhouse gases. Connecticut has an opportunity to stand at the forefront, and be a leader in a clean renewable energy source.

In order for this project to move forward, it is critical that the definition be amended to include biosolids biomass for gasification and to be eligible for clean renewable energy funding. I would be please to meet with you and discuss our project and resultant data.